

Template VI: National Inventory Improvement Plan (NIIP)

Instructions

The purpose of the National Inventory Improvement Plan (NIIP) is to help countries identify and prioritize improvements to their national systems. A completed plan will guide future efforts to increase the transparency, consistency, comparability, completeness, and accuracy of future inventories. This template draws upon information from other report templates in this handbook to identify priority areas for improvement. Therefore, this template should be completed after the other templates are completed.

The CD-ROM accompanying this handbook contains two versions of the templates. The first is the electronic version of this document with all sample text and instructions included in light green. The second version, without the light green text, is the one in which countries should enter country-specific data, and which they should use for preparing final reports. In the final plan, all green text should be deleted.

Step-by-step instructions are listed to the right. Each step is explained in detail in the corresponding section of the template.

- STEP 1: The objectives of developing an inventory improvement plan are presented. No country-specific text is required in this section, although countries are encouraged to add their own unique objectives.
- STEP 2: Summarize the key source categories for your country. Use information from the completed **Key Source Category Analysis** template to complete this section.
- STEP 3: Describe individual improvements identified for each source category. Use the completed **Documentation and Source-by-Source (SBS)** template to develop a list of improvements needed for each source, such as enhancing the methodologies used or obtaining more accurate activity data.
- STEP 4: Summarize the priorities for improving institutional arrangements. Include the list of improvements from Step 2 of the completed **Institutional Arrangements** template.
- STEP 5: Prioritize the most important improvements.
- STEP 6: Identify and describe projects that would lead to inventory improvements. Fill out the appropriate information for each project in the table.
- STEP 7: Describe current activities or future plans for communication, outreach, and training. (This section is optional.)
- STEP 8: Write a summary of the inventory improvement plan.

National Inventory Improvement Plan (NIIP)

VI.1 Objective

[INSTRUCTIONS: List any additional ways in which you have identified improvements. Describe any further objectives that your country may have in developing this plan.]

This National Inventory Improvement Plan (NIIP) presents actions that [Country] has identified to improve its national systems. The NIIP will guide future efforts to increase the transparency, consistency, comparability, completeness, and accuracy of future inventories. The plan addresses many of the shortcomings of the previous inventory, and will inform future inventory teams of needed improvements. These improvements have been identified through an assessment of key sources in [Country], methodologies and data used to estimate emissions, and existing institutional arrangements. *[List any additional ways that improvements have been identified.]*

VI.2 Summary of Key Sources

[INSTRUCTIONS: Complete Table VI.1 using the information in Table I.1 of the completed Key Source Category Analysis template. Include a short paragraph summarizing the source categories listed in this table. See additional instructions below. Be certain to note whether a trend assessment was also conducted.]

The concept of "Key Source Categories" was created by the IPCC as a tool to help countries prioritize resources for improving national greenhouse gas inventories. Key source categories have the greatest contribution to the overall level of national emissions. Key source categories can also be those categories that have a large influence on the trend of emissions over time.⁷

To improve the national greenhouse gas inventory, it may be necessary to consider more accurate methodologies, to develop country-specific emission factors, or to collect more detailed activity data. These activities all require additional resources, and it is not possible to make improvements for every source category. Therefore, [Country] has identified the source categories listed in Table VI.1 as the most important source categories contributing to national emissions. Assessing the methods and data used to estimate emissions from these key source categories is integral to identifying priorities. These source categories were identified through the Key Source Category Analysis, using software provided by U.S. EPA. A level assessment was conducted, identifying the largest sources constituting more than 95% of total national emissions.

[Write a short paragraph to provide context on the key sources for your country. Explain why certain sources represent a large portion of national emissions. If possible, identify which sources have become increasingly important in recent years, or which are likely to be increasingly important in the future.]

⁷ The IPCC's *Good Practice Guidance* (IPCC 2000) defines a key source category as a "[source category] that is prioritized within the National Inventory System because its estimate has a significant influence on a country's total inventory of direct greenhouse gases in terms of the absolute level of emissions, the trend in emissions, or both. . ." See Chapter 7, "Methodological Choice and Recalculation," in IPCC 2000. < <http://www.ipcc-nggip.iges.or.jp/public/gp/gpgaum.htm>>

Table VI.1: Key Sources for [Country]

Source Category
N ₂ O Emissions from Savanna Burning
CO ₂ Emissions from Mobile Combustion: Road Vehicles

Note: Taken from Table x.x in Section x, above.

[In the note to the table above, fill in the appropriate Table and Section numbers.]

VI.3 Potential Source Category Improvements

[INSTRUCTIONS: Review the completed Documentation and Source-by-Source Description template for each key source, and identify any improvements required to improve emission estimates. These actions may include, but are not limited to, obtaining more complete activity data, using a higher-tiered methodology (e.g., IPCC Tier 2 instead of Tier 1), or using regional- or country-specific emission factors. Describe the problem and the potential improvement. Also, identify any other improvements required to improve emission estimates for other source categories (e.g., estimating emissions for a source not included in past inventories).]

Information for each key source category was reported in Section I, which included a description of the source category, relevance to [Country], methodology, activity data, and emission factors used. Priority areas for improvement were identified using this documentation. Table VI.2 lists the problems and potential improvements for each key source category.

[Include any additional information on process used to identify improvements for each source category.]

Table VI.2: Priority Areas of Improvement for Key Source Categories

Sector	Source Category	Describe Problem	Potential Improvement
Energy	CO ₂ Emissions from Mobile Combustion: Road Vehicles	Fuel consumption data are highly uncertain.	Identify alternative sources of data. This effort may require coordination with the Ministry of Transport.

Improvements planned for additional source categories are identified in Table VI.3, which also includes sources for which emissions have not been estimated.

[INSTRUCTIONS: Table VI.3 is optional. If it is not used, it should be deleted, as should the sentence above, and successive tables should be renumbered.]

Table VI.3: Improvements Planned for Additional Source Categories

Sector	Source Category	Describe Problem	Potential Improvement
Industrial Processes	CO ₂ Emissions From Cement Production	Emissions from this source have not been estimated due to lack of activity data.	Research possible sources of activity data for this source. Coordinate with the Ministry of Commerce and Industry to identify potential sources of activity data. Develop emission estimates for this source.

VI.4 Institutional Arrangement Priorities

[INSTRUCTIONS: Complete Table VI.4 using information from the matching table, Table II.5, in the completed Institutional Arrangements template. In the text that precedes the table, provide any additional information on how institutional arrangement priorities were identified.]

The National Inventory System involves all of the institutional, legal, and procedural arrangements made by a country for estimating anthropogenic emissions, as well as the reporting and archiving of inventory information. Identified within a National Inventory System are the government agency responsible for producing a national greenhouse gas inventory, the key organizations that contribute data and methods, and the end-users of the inventory.

Preparing a comprehensive inventory requires establishing, identifying, and documenting all relevant contributors to the National Inventory System. Assessing and documenting the status of existing institutional arrangements for inventory development will ensure continuity and integrity of the inventory, promote institutionalization of the inventory process, and facilitate prioritization of future improvements.

[Provide additional comments that describe details on institutional priorities in your country, such as how priority actions were identified.]

Table VI.4 lists the priority actions identified in the chapter on Institutional Arrangements.

Table VI.4: Priority Actions for [Country's] National System

Action Number	Priority Action
1	Establish relationships with the National University and the National Center for Agriculture to improve the emission estimates for several agricultural sources.
2	Develop a system for archiving inventory spreadsheets and documents.

Note: Taken from Table x.x in Section x, above.

[In the note to the table above, fill in the appropriate Table and Section numbers.]

VI.5 Prioritized List of Potential Improvements

[INSTRUCTIONS: List up to 10 of the most important improvements identified in Steps 3 and 4, above. Classify these improvements according to how critical they are: "High," "Medium," or "Low." For example, improvements to an agricultural source may be very important (High), while developing outreach materials may be a lower priority (Low). Insert a short paragraph discussing the highest priority items (see additional instructions below).]

This section prioritizes the most critical improvements needed, based on an assessment of the relative importance of improvements identified for key sources, additional sources, and institutional arrangements identified in Steps 3 and 4, above. By addressing these issues, [Country] can move toward producing a more complete and higher-quality inventory. Table VI.5 lists these potential improvements, and identifies the level of priority associated with each (High, Medium, or Low).

[Insert a paragraph describing the highest priority items and the areas of priority that are most applicable to your country (e.g., developing estimates for new sources, enhancing current methodologies, obtaining more reliable activity data, or developing closer relationships with other institutions.)]

Table VI.5: National Inventory Improvement Priorities

Priority Level	Improvement Needed
High	Develop emission estimates of CO ₂ emissions from cement production. Coordinate with the Ministry of Commerce and Industry to identify potential sources of activity data.
High	Develop a system for archiving inventory spreadsheets and documents.
Medium	Coordinate with the Ministry of Transport to identify alternative sources of fuel consumption data for road vehicles.
Medium	Establish relationships with the National University and the National Center for Agriculture to improve the emission estimates for several agricultural sources.

VI.6 Communication, Outreach, and Training

[INSTRUCTIONS: This is an optional section that should be included if there are current activities or future plans for raising awareness of inventory efforts or for training staff on the inventory system or practices. These plans and activities may include any of the following:

- *Scheduling stakeholder meetings*
- *Raising awareness with government, academia, and the public*
- *Providing feedback to government and associated institutions*
- *Training or hiring inventory staff*
- *Developing a transition plan to ensure a smooth transfer of inventory capacity when needed*

- *Improving relationships with institutions*
- *Improving methods for reporting and documentation*
- *Developing an uncertainty analysis*
- *Developing a quality assurance and quality control plan*
- *Implementing comments from peer reviews*
- *Archiving improvements*

This section should be removed from this chapter if it is not completed.]

VI.7 Summary

[INSTRUCTIONS: Summarize the improvements and projects identified that will strengthen the National Inventory System and improve the quality and completeness of emission estimates. Use the text below as a general guide.]

Through an assessment of key sources, current methods and data, and institutional arrangements, we have identified *[insert number]* national inventory improvement priorities. Some of these improvements require additional personnel, capital, or other costs to implement them. *[Country]* has identified specific projects that will improve the quality and completeness of our national emission estimates.

[Provide one sentence on the objective of each project. For example, "Project 1 will enable us to estimate CO₂ emissions from cement production, which may be a significant source of emissions in [Country]."]

Table VI.6: Potential Projects for Improving the National Inventory System

#	Potential Project	Estimated Personnel Needed	Estimated Cost (\$)	Estimated Capital (equipment) Needed
1	Coordinate with the Ministry of Commerce and Industry to identify potential sources of activity data, and develop emission estimates of CO ₂ emissions from cement production.	Need to hire 1 expert.	\$XXXX	None.
2	Work with inventory teams from other countries to develop a system for archiving inventory spreadsheets and documents.	None. Will be performed by current staff.	\$XXXX	Need XX software for a few staff members.